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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/699,022	10/31/2003	Guenter Weinberger	1007-12	2140

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EXAMINER

WANG, ALBERT C

ART UNIT PAPER NUMBER

2115

DATE MAILED: 04/04/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/699,022	WEINBERGER ET AL.	
	Examiner	Art Unit	
	Albert Wang	2115	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>10/03</u> . | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

1. Original claims 1-20 are pending.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Collins, U.S. Patent No. 6,697,953, in view of Gschwind et al., U.S. Patent No. 6,948,082 ("Gschwind").

As per claim 1, Collins teaches a method for conserving power by controlling program execution in a convergence device comprising a power source and at least one processor configured to perform processing operations associated with voice call communication functions and to perform processing operations associated with data communication functions, the processor being operative to execute critical and noncritical functions (fig. 1, communicator 100 comprising battery 110 and processor within controller 150; fig. 4; col. 2, lines 43-53), the method comprising the steps of:

based at least in part on a power indicator representative of a characteristic of the power source, degrading a given function, such that an amount of power source capacity utilizable for the voice call communication functions is increased (fig. 3, based on remaining battery capacity invoke power-saving feature; fig. 4, since power dissipation for non-critical functions are degraded at certain thresholds, more power is available for other functions such as voice call communications).

However, Collins does not expressly teach that degrading a function involves replacing execution of a given program with execution of an alternate capacity program, where the alternate capacity program performs substantially the same function as the given program but having a different power source capacity associated therewith. Collins teaches saving power by changing frequency (col. 6, lines 55-61). As an alternative embodiment to changing frequency, Gschwind teaches replacing an algorithm with one that dissipates less power (col. 5, lines 33-45; col. 5, line 66 – col. 6, line 5; col. 8, lines 45-57). Since Gschwind teaches using alternative embodiments to save power, it would have been obvious to one of ordinary skill in the art, at the time of the invention, that Collins' function degrading may be achieved by Gschwind's method of replacing a program with an alternate program that consumes less power.

Furthermore, Collins teaches retrieving at least one of a plurality of features from memory (fig. 3, step 340; col. 3, line 63 – col. 4, line 11). In order to differentiate among the plurality of features, Collins inherently uses identifiers associated with each feature. Therefore, it would have been obvious to associate an identifier with an alternate program.

As per claim 2, Collins teaches the power source comprises a battery (fig. 1, battery 110).

As per claim 3, Collins teaches the power indicator is representative of a remaining capacity of the battery (fig. 3, battery capacity).

As per claims 4 and 14-16, Collins teaches degrading a non-critical function if the power indicator is below first and second thresholds (fig. 4).

As per claim 5, Collins teaches if the power indicator is not below a first threshold, invoking feature set with higher power consumption (figs. 3 & 4).

As per claim 6, Collins teaches cellular voice call communications (col. 2, lines 43-53).

As per claims 7-10, Gschwind teaches multimedia processing at one or more of a specified data rate, a specified refresh rate and a specified display resolution (col. 5, lines 33-66).

As per claim 11, Collins implements at least one of an operating system running on the processor, a graphical user interface of the convergence device, and one or more of the voice call communication functions as a critical function (fig. 4).

As per claim 12, Gschwind teaches the plurality of noncritical programs are categorized based on power source capacity into at least two categories including a category at a first capacity and a category at a second capacity, the first capacity being a lower capacity than the second capacity (col. 5, lines 33-66).

As per claim 13, Gschwind teaches each of at least a subset of the plurality of noncritical programs may be in one of a number of states, including at least an executing state, a pending state and a sleeping state (col. 5, lines 33-66).

As per claim 17, Collins teaches the processor is operative to store a list of functions with associated capacities for one or more of the noncritical functions (col. 3, lines 38-62).

As per claim 18, Gschwind teaches multithreaded processing (col. 9, lines 31-46).

As per claim 19, Collins teaches a convergence device comprising:

a power source (fig. 1, battery 110); and

at least one processor configured to perform processing operations associated with voice call communication functions and to perform processing operations associated with data communication functions, the processor being operative to execute critical and noncritical functions (fig. 1, processor within controller 150; fig. 4; col. 2, lines 43-53);

wherein based at least in part on a power indicator representative of a characteristic of the power source, degrading a given function, such that an amount of power source capacity utilizable for the voice call communication functions is increased (fig. 3, based on remaining battery capacity invoke power-saving feature; fig. 4, since power dissipation for non-critical functions are degraded at certain thresholds, more power is available for other functions such as voice call communications).

However, Collins does not expressly teach that degrading a function involves replacing execution of a given program with execution of an alternate capacity program, where the alternate capacity program performs substantially the same function as the given program but having a different power source capacity associated therewith. Collins teaches saving power by changing frequency (col. 6, lines 55-61). As an alternative embodiment to changing frequency, Gschwind teaches replacing an algorithm with one that dissipates less power (col. 5, lines 33-45; col. 5, line 66 – col. 6, line 5; col. 8, lines 45-57). Since Gschwind teaches using alternative embodiments to save power, it would have been obvious to one of ordinary skill in the art, at the time of the invention, that Collins' function degrading may be achieved by Gschwind's method of replacing a program with an alternate program that consumes less power.

Furthermore, Collins teaches retrieving at least one of a plurality of features from memory (fig. 3, step 340; col. 3, line 63 – col. 4, line 11). In order to differentiate among the plurality of features, Collins inherently uses identifiers associated with each feature. Therefore, it would have been obvious to associate an identifier with an alternate program.

As per claim 20, since Collins/Gschwind teaches the method of claim 1 and the convergence device of claim 19, Collins/Gschwind teaches the claimed article of manufacture.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Albert Wang whose telephone number is 571-272-3669. The examiner can normally be reached on M-F (9:30 - 6:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas C. Lee can be reached on 571-272-3667. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

AW


**CHUN CAO
PRIMARY EXAMINER**